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SH		6,264,945		Fischetti et al.	07-24-2001	
		6,254,866_		Fischetti et al	07-03-2001	
		6,248,324_		Fischetti et al.	06-19-2001	
		6,238,661_		Fischetti et al	05-29-2001	<b>₹</b>
		6,056,955_	11	Fischetti et al	05-02-2000	70
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		6,017,528_	<del>     </del>	Fischetti et al	01-25-2000	Cy My
$\dashv$		5,997,862_		Fischetti et al	12-07-1999	70 1
		5,985,271_	<del>     </del>	Fischetti et al	11-06-1999	Ch. Y. Z
		5,688,501_	<del>-</del>	Merril et al	11-18-1997	
$\rightarrow$		<b>—</b> 4,957,686—	++	— Norris ——	09-18-1990	7, 6
$\dashv$		5,604,109_	1	- Fischetti et al	02-18-1997	- 62 E
		<b> 5,882,631</b>		— Suga et al. —	03-16-1999	93
		<b></b> 5,741,487		Asai et al	04-21-1998	`%
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$\frac{1}{1}$		<del></del> 3,983,209	+ +	Schmitt	09-28-1976	
- <b>W</b> +		<b>—6,113,887 —</b>	+	Mori et al.	09-05-2000	
SH		<del></del> 4,885,163	+	Shaar et al.	12-05-1989	

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	Vitte, A et al. (1998) "Characte					
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			lytic enzyr	ne." <i>PNAS.</i> 9	8 (7) p	. 4107-4112									
			Garcia, et al. (1987) "Purification and biochemical characterization of the												
		↓_	pneumococcal bacteriophage Cp-1 lysin." Journal of Virology 61(8)												
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